

Title (en)  
ILLUMINATION UNIT AND LIQUID CRYSTAL DISPLAY DEVICE USING THE UNIT

Title (de)  
BELEUCHTUNGSEINHEIT UND DIE EINHEIT VERWENDENDE FLÜSSIGKRISTALLANZEIGEVORRICHTUNG

Title (fr)  
UNITE D'ECLAIRAGE ET DISPOSITIF D'AFFICHAGE A CRISTAUX LIQUIDES UTILISANT CETTE UNITE

Publication  
**EP 1460336 A4 20050601 (EN)**

Application  
**EP 02793369 A 20021225**

Priority  
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Abstract (en)  
[origin: EP1460336A1] The liquid crystal display device of the present invention is provided with: light sources; a light guiding plate for guiding light from the light sources to a direction of a liquid crystal panel; a reflection sheet so disposed as to cover the light guiding plate and the light sources; frame portion for supporting the light guiding plate and the light sources, both of which are covered with the reflection sheet (lighting element), from the upper side of the lighting element; a rear face cover for housing the lighting element and being fitted with the frame portion; and a shield portion disposed between the rear face cover and the lighting element. The shield portion is made from a material having high heat conductivity and shields gaps between the frame portion and the rear face cover, gaps between the rear face cover and the lighting element, and a plurality of heat discharge holes formed on the bottom of the rear face cover to isolate the display area from the gaps. <IMAGE>

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**F21V 8/00**; **F21Y 103/00**; **G02F 1/13357**; **G02F 1/13**

IPC 8 full level  
**G02F 1/13** (2006.01); **G02F 1/13357** (2006.01); **G02F 1/133** (2006.01)

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Citation (search report)  
• [X] US 5742366 A 19980421 - IMOTO SATOSHI [JP]  
• [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 08 6 October 2000 (2000-10-06)  
• See references of WO 03056236A1

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